

Having thus described our invention, we now claim:

1. A method of parameter passing of data structures where an API and corresponding stored procedures are at different version/release levels, the method comprising:
 - receiving, from a calling program, a data structure having at least one data structure element;
 - parsing the data structure for a first version identifier of the data structure;
 - comparing the first version identifier to a second version identifier of the stored procedures;
 - when said comparing of the first version identifier with the second version identifier is indicative of a data structure compatibility between said calling program and said stored procedures, parsing all of the data structure elements of the data structure; and
 - when said comparing of the first version identifier with the second version identifier is indicative of a data structure incompatibility between said calling program and said stored procedures, parsing only the data structure elements of the data structure that are known to both of said calling program and said stored procedures.
2. The method as set forth in claim 1, wherein said comparing is indicative of a data structure incompatibility between said calling program and said stored procedures when the first version identifier is missing.

3. The method as set forth in claim 1, wherein said comparing is indicative of a data structure compatibility between said calling program and said stored procedures when the first version identifier matches the second version identifier.

4. The method as set forth in claim 1, wherein said comparing is indicative of a data structure incompatibility between said calling program and said stored procedures when at least one of:

the first version identifier is less than the second version identifier or missing; and
the first version identifier is greater than the second version identifier.

5. The method as set forth in claim 4, wherein said parsing only the data structure elements of the data structure that are known to both of said calling program and said stored procedures includes:

parsing only the data structure elements of the data structure that are known to the calling program when the first version identifier is less than the second version identifier.

6. The method as set forth in claim 4, wherein said parsing only the data structure elements of the data structure that are known to both of said calling program and said stored procedures includes:

parsing only the data structure elements of the data structure that are known to the stored procedures when the first version identifier is greater than the second version identifier.

7. The method as set forth in claim 1, wherein the receiving includes receiving the data structure having a BLOB/CLOB pair.

8. The method as set forth in claim 7, wherein:
the receiving the data structure having the BLOB/CLOB pair includes:
receiving a CLOB having at least one character data value; and
receiving a BLOB having a version identifier, a data element ID for each
respective character data value, a data type for each respective character data value, and a data
length for each respective character data value.

9. The method as set forth in claim 8, wherein the receiving a BLOB having a
version identifier includes receiving a BLOB having a version number and a release number.

10. A system for passing parameters of data structures on a computer system wherein
APIs and corresponding stored procedures are at different version/release levels, the system
comprising:

means for receiving, from a calling program, a data structure including at least one data
structure element;

means for parsing the data structure for a first version identifier of the data structure;

means for comparing the first version identifier to a second version identifier of the
stored procedures and determining one of a data structure compatibility or a data structure

incompatibility between said calling program and said stored procedures as a result of said comparing;

means for parsing all of the data structure elements of the data structure when said comparing means determines a data structure compatibility between said calling program and said stored procedures; and

means for parsing only the data structure elements of the data structure that are known to both of said calling program and said stored procedures when said comparing means determines a data structure incompatibility between said calling program and said stored procedures.

11. The system for passing parameters of data structures as set forth in claim 10, wherein said comparing means determines a data structure incompatibility between said calling program and said stored procedures when the first version identifier is missing.

12. The system for passing parameters of data structures as set forth in claim 10, wherein said comparing means determines a data structure compatibility between said calling program and said stored procedures when the first version identifier matches the second version identifier.

13. The system for passing parameters of data structures as set forth in claim 10, wherein said comparing means determines at least one of:

a data structure incompatibility between said calling program and said stored procedures when the first version identifier is less than the second version identifier or missing; and

a data structure incompatibility between said calling program and said stored procedures when the first version identifier is greater than the second version identifier.

14. The system for passing parameters of data structures as set forth in claim 13, wherein said parsing means parses only the data structure elements of the data structure that are known to the calling program when the first version identifier is less than the second version identifier or missing.

15. The system for passing parameters of data structures as set forth in claim 13, wherein said parsing means parses only the data structure elements of the data structure that are known to the stored procedures when the first version identifier is greater than the second version identifier.

16. The system for passing parameters of data structures as set forth in claim 10, wherein the data structure includes a BLOB/CLOB pair.

17. The system for passing parameters of data structures as set forth in claim 16, wherein:

the CLOB includes at least one character data value; and

the BLOB includes:

a version identifier;

a data element ID for each respective character data value;

a data type for each respective character data value; and
a data length for each respective character data value.

18. The system for passing parameters of data structures as set forth in claim 10, wherein the version identifier includes:

a version number; and
a release number.

19. A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for use in passing parameters of data structures on a computer system wherein APIs and corresponding stored procedures are at different version/release levels, comprising:

program code for receiving, from a calling program, a data structure including at least one data structure element;

program code for parsing the data structure for a first version identifier of the data structure;

program code for comparing the first version identifier to a second version identifier of the stored procedures and determining one of a data structure compatibility or a data structure incompatibility between said calling program and said stored procedures as a result of said comparing; program code for parsing all of the data structure elements of the data structure when said comparing program code determines a data structure compatibility between said calling program and said stored procedures; and

program code for parsing only the data structure elements of the data structure that are known to both of said calling program and said stored procedures when said comparing program code determines a data structure incompatibility between said calling program and said stored procedures.

20. The computer program product as set forth in claim 19, wherein said comparing program code determines a data structure incompatibility between said calling program and said stored procedures when the first version identifier is missing.

21. The computer program product as set forth in claim 19, wherein said comparing program code determines a data structure compatibility between said calling program and said stored procedures when the first version identifier matches the second version identifier.

22. The computer program product as set forth in claim 19, wherein said comparing program code determines at least one of:

a data structure incompatibility between said calling program and said stored procedures when the first version identifier is less than the second version identifier or missing; and

a data structure incompatibility between said calling program and said stored procedures when the first version identifier is greater than the second version identifier.

23. The computer program product as set forth in claim 22, wherein said parsing program code parses only the data structure elements of the data structure that are known to the

calling program when the first version identifier is less than the second version identifier or missing.

24. The computer program product as set forth in claim 22, wherein said parsing program code parses only the data structure elements of the data structure that are known to the stored procedures when the first version identifier is greater than the second version identifier.

25. The computer program product as set forth in claim 19, wherein the data structure includes a BLOB/CLOB pair.

26. The computer program product as set forth in claim 25, wherein:
the CLOB includes at least one character data value; and
the BLOB includes:

- a version identifier;
- a data element ID for each respective character data value;
- a data type for each respective character data value; and
- a data length for each respective character data value.

27. The computer program product as set forth in claim 19, wherein the version identifier includes:

- a version number; and
- a release number.